

No. 11054

IN THE

United States Circuit Court of Appeals

FOR THE NINTH CIRCUIT

INTERNATIONAL CARBONIC ENGINEERING
COMPANY,

Appellant,

vs.

NATURAL CARBONIC PRODUCTS, INC., a corpo-
ration, GEORGE PEPPERDINE FOUNDATION, a
corporation, L. H. POLDERMAN, W. L. BENSON
and C. B. BENSON, individually and as a copartner-
ship doing business under the fictitious firm name and
style of Natural Carbonic Products,

Appellees.

TRANSCRIPT OF RECORD

VOLUME V

(Pages 1599 to 1660, Inclusive)

Upon Appeal from the District Court of the United States
for the Southern District of California,
Central Division

No 11054.

IN THE

United States Circuit Court of Appeals

FOR THE NINTH CIRCUIT

**INTERNATIONAL CARBONIC ENGINEERING
COMPANY,**

Appellant,

vs.

**NATURAL CARBONIC PRODUCTS, INC., a corpo-
ration, GEORGE PEPPERDINE FOUNDATION, a
corporation, L. H. POLDERMAN, W. L. BENSON
and C. B. BENSON, individually and as a copartner-
ship doing business under the fictitious firm name and
style of Natural Carbonic Products,**

Appellees.

TRANSCRIPT OF RECORD

VOLUME V

(Pages 1599 to 1660, Inclusive)

**Upon Appeal from the District Court of the United States
for the Southern District of California,
Central Division**

[Title of District Court and Cause.]

Hon. Ralph E. Jenney, Judge Presiding

REPORTER'S TRANSCRIPT OF DECISION OF
THE COURT

Appearances:

Hugh M. Morris, Esq., Wilmington, Delaware; Lyon & Lyon, Los Angeles, California, by Leonard S. Lyon, Esq., and R. E. Caughey, Esq.; Allen E. Peck, Esq., Washington, D. C., for Plaintiffs.

Casimir A. Miketta, Esq., Los Angeles, Calif., for Defendants Natural Carbonic Products, L. H. Polderman, W. L. Benson, and C. B. Benson.

Harris, Kiech, Foster & Harris, Los Angeles, Cal., by Ward D. Foster, Esq., for Defendant George Pepperdine Foundation.

Los Angeles, California, Saturday, July 15, 1944;

10 A. M.

The Court: I shall be most informal in giving this memorandum opinion. When I stated inadvertently that I would give you my decision during the month, I was thinking of the end of July. This case took seven weeks to try, and there have been pre-trial discussions and motions at one time and another, since the 21st day of October, 1941. Many hundreds of pages of pleadings and briefs have been filed, and literally hundreds of decisions have been cited. I have carefully studied all of the important citations, some of them many times, and I have digested and reviewed all the testimony. That has been quite an arduous task. The conference of federal judges in San Francisco took a week; then, as you know, I was

appointed by the judges as chairman of a committee to investigate the proposed changes to the Federal Rules of Civil Procedure, and that took a good deal of time. Then I am leaving for Chicago to attend a conference of the Committee, called by Chief Justice Stone, for a revision of the Bankruptcy Laws, and the preparation for this conference has involved considerable work.

Therefore, I have had, and will have, no time to prepare any formal written opinion, nor do I believe that there is any advantage to counsel or the bar at large in so doing. [2]

My objective will be to indicate, as briefly as is possible after such a lengthy trial, my views on the many points which have been raised by counsel; and to give to the Circuit Court of Appeals the reasoning behind my conclusions on these various points.

No general statement of facts is necessary here. You are all so familiar with the issues raised by the pleadings that no discussion of those issues seems necessary except in instances in which some particular point is involved.

The original Complaint, filed on October 21, 1941, was amended by an Amended and Supplemental Complaint filed on February 28, 1944, and by a Further Amended and Supplemental Complaint filed on the same day.

The First and Amended Answer to Further Amended Complaint filed by defendants Natural Carbonic Products, Inc., L. H. Polderman, W. L. Benson, C. B. Benson and Natural Carbonic Products, a copartnership, and the answer of the George Pepperdine Foundation, were both slightly amended during the trial.

The Answer of Natural Carbonic contains a counterclaim against the plaintiffs, alleging unfair trade practices and violation of the anti-trust laws of the United States.

The Pepperdine answer contains a similar counterclaim couched in somewhat different language but containing substantially the same general allegations.

You are all familiar with these allegations in these [3] counterclaims, and I will not take the time here even to paraphrase them.

Counsel for plaintiffs herein have contended that the counterclaim does not plead special damages to defendant, and, therefore, that it should be dismissed.

This court felt that it should be governed by the decision of the Second Circuit on April 3, 1944, in *Package Closure Corp. v. Sealright Co., Inc. et al.*, 141 Fed. (2d) p. 972. In that case Judge Frank said in effect that in an action for treble damages for violation of the anti-trust laws, no unusual degree of "definiteness and particularity" is required in pleading the causal relationship between defendant's violation of the act and plaintiff's injury; and that particulars can be obtained under the discovery procedure. Similarly, he said, that exactness and precision in pleading damages is not required, especially where the defendant was responsible for creating a situation in which damages could not be measured with precision.

In *Hancock Oil Company v. Universal Oil Products Company*, 115 Fed. (2d) 45, the court said, at page 47:

"The transactions or occurrences that are the subject matter of the complaint need not describe the new and

separate cause of action in violation of the Clayton Act in order to secure relief by way of counterclaim. Their true character may be disclosed by a counterclaim supplementing the facts, showing the entire transaction of the plaintiff [4] to constitute such a violation. (Supplementing opinion, 120 Fed. (2d) 959, certiorari denied, 314 U. S. 666.)

See *Lynch v. Magnavox Co.*, 94 Fed. (2d) 883, a Ninth Circuit Court of Appeals case; cf. *C. E. Stevens Company v. Foster & Kleiser Co.*, 109 Fed. (2d) 764, reversed 311 U. S. 255.

This court therefore refused to dismiss the counterclaim and granted permission to defendants to introduce evidence in support thereof. We felt, and feel now, that the criterion above indicated by which the counterclaim is to be tested, as a pleading, is quite different from the criterion to be applied to proof. I do not propose to analyze the evidence introduced in support of the counterclaim, sketchy as it was. Suffice it to say that early in the course of the trial the court called defendants' counsel's attention to the foregoing decisions and warned them that they must be prepared to put on specific proof, not only of alleged illegal acts, but of the damage suffered by defendants.

Defendants have relied to a great extent upon the theory that where there is so much smoke there must be some fire. They cite the large number of patents owned or controlled by plaintiffs or their associates; the licensing by the parent corporation to wholly-owned subsidiaries; the great wealth of plaintiffs; their highly specialized patent lawyers and well-trained engineers; their shrewdness in business organization and operations; the fact

that so-called [5] victims cannot ordinarily afford to fight, and must therefore agree to pay a royalty; the suppression and abandonment of certain inventions and patent applications to extend the ostensible monopoly afforded by the patent in suit, etc., etc.

The counterclaim asks for an injunction and for damages not only because of violation of the anti-trust laws, but also because of the committing of acts by plaintiffs which it is alleged amount to unfair competition. The evidence in support of these allegations of the counterclaim is commingled with the evidence offered in support of the allegations of the answer that plaintiffs do not come into court with clean hands, and should therefore be denied relief. The allegations in the pleadings are somewhat confused in that regard also. In this connection defendants contend, in effect, among other things, the following:

1. That plaintiffs have formed a patent pool, having garnered some 40 patents for the purpose of attempting to intimidate, overwhelm and coerce the entire solid carbon dioxide industry to deal exclusively with plaintiffs.

2. That plaintiffs have granted licenses to wholly-owned or partially-owned subsidiaries with interlocking directorates in order that these companies might act as bellwethers and induce other small or independent units in the industry to believe that plaintiffs' patents were sound and that they should take licenses rather than fight.

3. That plaintiffs have offered and granted to others, and subsequent to the filing of the complaint, offered to one [6] of the defendants a license contract under plaintiffs' patents obligating the licensee to pay to plaintiffs royalty upon all solid carbon dioxide (an unpatented

commodity) sold by the licensee, whether or not such products were produced by the apparatus subject to or in accordance with the method of the patents involved.

4. That plaintiffs have made false representations as to the scope of their patents in order to induce the taking of licenses.

5. That plaintiffs have suppressed and abandoned certain applications in an attempt to extend unjustly the asserted monopoly of the patent in suit until December 24, 1952.

6. That plaintiffs have suppressed the so-called Martin application for United States patent.

7. That defendants have been forced by plaintiff to either

(a) discontinue the manufacture of solid carbon dioxide and lose their large investment in plant and wells, or

(b) take a license from plaintiffs, or

(c) bear the tremendously heavy expense of litigation.

These are but illustrations of the contentions of defendants on this point, which must necessarily be given careful consideration. Charges of fraud or of over-reaching should be established by clear and convincing proof. Just because one is proved to be clever, adroit, resourceful and [7] successful does not mean that he has been proved to be dishonest—that he is guilty of more than being mistaken as to the law or the fact. If illegality, fraud or dishonesty, and legal damage therefrom, exist, that must be shown by the evidence to the satisfaction of the court. If a court of equity is to close its doors to a litigant, the facts upon which such action is predicated must be established by the alleging party and the

quantum of proof are well known to all of you and need not be repeated.

Only one of these contentions of defendants (3 above) requires additional consideration in connection with this matter of the position of the plaintiffs in this litigation.

Plaintiffs admit that they offered a license to defendant, which license provides for payment to plaintiffs of a royalty, "whether or not such solid carbon dioxide has been manufactured in accordance with the methods, processes and apparatus of any one of the licensed patents."

That a court of equity may refuse aid to a patentee when it has been shown to be using the patent contrary to public policy is well established. As said by the Supreme Court in *Morton Salt Co. v. Suppiger Co.*, 314 U. S. 488, at p. 492:

"It is a principle of general application that courts, and especially courts of equity, may appropriately withhold their aid where the plaintiff is using the right asserted contrary to the public interest. *Virginian Ry Co. v. [8] Federation*, 300 U. S. 515, 552; *Central Kentucky Co. v. Railroad Commission*, 290 U. S. 264, 270-73; *Harrisonville v. Dickey Clay Co.*, 289 U. S. 334, 337-338; *Beasley v. Texas & Pacific Ry. Co.*, 191 U. S. 492, 497; *Securities & Exchange Commission v. U. S. Realty Co.*, 310 U. S. 434, 455; *United States v. Morgan*, 307 U. S. 183, 194. Respondent argues that this doctrine is limited in its application to those cases where the patentee seeks to restrain contributory infringement by the sale to licensees of a competing unpatented article, while here respondent seeks to restrain petitioner from a direct infringement, the manufacture and sale of the salt tablet depositor. It is said that the equitable maxim that a

party seeking the aid of a court of equity must come into court with clean hands applies only to the plaintiff's wrongful conduct in the particular act or transaction which raises the equity, enforcement of which is sought; that where, as here, the patentee seeks to restrain the manufacture or use of the patented device, his conduct in using the patent to restrict competition in the sale of salt tablets does not foreclose him from seeking relief limited to an injunction against the manufacture and sale of the infringing machine alone. * * *

"It is the adverse effect upon the public interest of a successful infringement suit, in conjunction with the patentee's course of conduct, which disqualifies him to maintain the suit, regardless of whether the particular defendant has [9] suffered from the misuse of the patent." (Citing a large number of cases.)

See also *Barber-Colman Co. v. National Tool Co.*, Sixth Circuit, 136 Fed. (2d) 339;

Mercoid Corp. v. Mid-Continent Investment Co., 320 U. S. 661;

B. B. Chemical Co. v. Ellis, 314 U. S. 495;

Carbice Corp. v. American Patents Corp., 283 U. S. 27, 33;

Leitch Mfg. Co. v. Barber Co., 302 U. S. 458;

Dehydrators, Ltd. v. Petrolite Corp. (Ninth Circuit, Judge Wilbur), 117 Fed. (2d) 183;

Sylvania Industrial Corp. v. Visking Corp., Fourth Circuit, 132 Fed. (2d) 947, petition for writ of certiorari dismissed on motion of counsel for petitioner, *Sylvania Industrial Corp.*, 319 U. S. 777.

These general principles of business conduct in connection with the exercise of patent monopolies are now well

recognized in our jurisdiction. We have, however, been unable to find any case holding specifically that the precise language of the license agreement, above quoted, constitutes an unjust and unfair use of patent rights, used under the circumstances here established, and is, therefore, contrary to public policy. It is noted that the challenged clause is a part of the formula for determining, under the license agreement, the amount of royalty to be paid by licensees. It should be noted also that the evidence shows [10] that this form of license agreement was amended as of April 1, 1942 (Ex. 48) as to Mathieson, on February 4, 1944, as to Pure Carbonic, Inc., and shortly thereafter as to other licensees. Plaintiffs contend also that the clause in question was never at any time used to collect royalties from licensees, even though it appeared in the contract.

This court does not feel that the alleged violations of the anti-trust acts and the alleged acts of unfair competition have been satisfactorily proved, nor does it feel that defendants' proof of damage has been satisfactory. Judgment therefore will be for plaintiffs on the counterclaim.

Plaintiffs objected to the admission in evidence of certain admissions made by them in response to requests for admissions under Rule 36a. Prior to the filing of the counterclaim, defendants requested plaintiffs to make certain admissions. Plaintiffs felt that the matter covered by certain of these requests for admissions was irrelevant, but state that they answered them under the provisions of Rule 36 rather than suffer a possible penalty for not answering, intending to make objection to admission at the time of trial. Some of these may have

been, and undoubtedly were, [11] irrelevant at the time the answers were made, but many of them possibly became relevant after the filing of the counterclaim.

Plaintiffs contend that these admissions should be rejected; that they had no way of protecting themselves at the time the answers were made; and that the rules do not provide for objections, as is the case with interrogatories under Rule 33. See Commentary, 5 Fed. Rules Service 835.

Some of our courts have held that Rule 36 operates extrajudicially and that the court should not consider an application for relief from compliance with the rule. They place upon the party called upon to respond the burden of deciding for himself whether there are good reasons for refusing either to admit or deny and take the risk of having to pay the costs incurred in proving them, instead of having the court advise him in advance as to what course he ought to take. *Penmac Corp. v. Falcon Pencil Corp.*, District Court for the Southern District of New York, 5 Fed. Rules Service 36a.41; *In Re Stein*, 43 Fed. Supp. 845; *Walsh v. Connecticut Mutual Life Ins. Co.*, 26 Fed. Supp. 566; *Modern Food Process Co. v. Chester Packing and Provision Co.*, 30 Fed. Supp. 520; *Momand v. Paramount Pictures Distributing Co.*, 36 Fed. Supp. 568.

This court has always permitted attorneys to appear on law and motion day and make objection to any request for admission. The rules provide that the admission must be made "within a period designated in the request, not less [12] than ten days after service thereof, *or within such further time as the court may allow on motion and notice.*" (Italics supplied.) This court has heard

these motions and has at times extended the period for answer until the time of trial. Thus, what seems like an unfortunate omission in the Rules of Civil Procedure is avoided. We trust that the new proposed amendments will cover the point satisfactorily. The court feels also that the plaintiffs were estopped to deny the truth of the answers or to object to their admissibility, even though they have become relevant after they were originally filed.

The objection to the admission was overruled at the time of the trial, subject to motion to strike or subject to being stricken by action of the court sua sponte. As to each item the action of the court at the time of the trial will stand.

As I have said, closely associated with the allegations of the counterclaim are these allegations in the answer that plaintiffs do not come into court with clean hands.

Except as to that point which I have heretofore indicated, the proof of the other contentions of unclean hands is commingled with the evidence offered in support of the allegations of the counterclaim, and we have sufficiently [13] discussed that general matter. The court does not feel that the proof on the subject of unclean hands meets the well-recognized requirements of equity jurisprudence. A detailed analysis of the items of proof seems unnecessary. You are all familiar with the evidence. Suffice it to say that the charge has not been, in the judgment of the court, satisfactorily proved.

On that point, therefore, the decision of the court is against the defendants' contention. Had this point been decided in favor of the defendants, it would, of course,

be unnecessary for me to analyze the other issues of fact and law involved in this case.

The issue primarily raised by the amended complaint is one of infringement. It is fundamental that there can be no infringement of an invalid patent. It has been suggested that if the court finds noninfringement, it is unnecessary or even improper for the court to consider the question of validity. I do not so interpret either the decisions of the Ninth Circuit Court of Appeals or of the Supreme Court of the United States. There are manifestly many cases in which after a finding of noninfringement it would be improper for the trial court to proceed to make a decree upholding the validity of the patent. If there is no infringement, [14] the question of validity might be moot, as indicated by the courts in the recent cases of *Electrical Fittings Corp. v. Thomas & Betts Co.*, 307 U. S. 241; *Altvater v. Freeman*, 319 U. S. 359, 363; *Danforth v. Northill Co.* (9 C. C. A.), 142 Fed. (2d) 51; *L. McBrine Co. v. Silverman* (9 C. C. A.), 121 Fed. (2d) 181; *Leishman v. Associated Wholesale Electric Co.* (9 C. C. A.), 137 Fed. (2d) 722; *Schnitzer v. California Corrugated Culvert Co.* (9 C. C. A.), 140 Fed. (2d) 275; *Richard Irvin & Co. v. Westinghouse Air Brake Co.*, 121 Fed. (2d) 429; *Aero Spark Plug Company v. B. G. Corp.*, 130 Fed. (2d) 290.

We do not believe, however, that the Supreme Court of the United States or the Circuit Court of Appeals for this Circuit ever intended to prevent a trial court, in circumstances such as those presented in the case at bar, from finding or decreeing noninfringement because of invalidity; otherwise, as part of its campaign to control an industry, or even a small part of it, a patentee or

his successors might, conceivably, file and try infringement suits in many District Courts over the country—even though, as a matter of fact and of law, the patent was invalid. Thus, the time of all but one of these District Courts would be wasted, with a resultant expense to the government and congestion of court calendars. The federal courts, by putting this unnecessary and large expense upon litigants, would be thus encouraging and assisting those [15] who sought to maintain an illegal monopoly and to stifle competition.

See *Muncie Gear Works, Inc. v. Outboard, etc., Co.*, March 30, 1942, by Mr. Justice Jackson, 315 U. S. 759, 768;

United Carbon Co. v. Binney & Smith Co., December 7, 1942, by the same Justice, 317 U. S. 228, 233, 237;

Universal Oil Products Co. v. Globe Oil & Refining Co., 61 U. S. P. Q. 382; (No. 392) Supreme Court of the United States, May 29, 1944, by Mr. Justice Reed.

See also the following Supreme Court cases decided before the case of *Electrical Fittings Corp. v. Thomas & Betts Co.*, *supra*:

Thomson Co. v. Ford Motor Co., 265 U. S. 445, 454;
Smith v. Hall, 301 U. S. 216;

General Electric Co. v. Wabash Co., 304 U. S. 364.

See also the decision of the Ninth Circuit Court of Appeals, speaking through Judge Stephens, in *Marcus v. Druge*, 136 Fed. (2d) 602;

Aero Spark Plug Co. v. B. G. Corp., 130 Fed. (2d) 290; and

Dixie-Vortex Co. v. Paper Container Mfg. Co., a Seventh Circuit case, 130 Fed. (2d) 569, certiorari denied 317 U. S. 686. [16]

The application for the patent in suit was filed May 22, 1928. The patent was issued December 24, 1935, about seven years and seven months thereafter. The only claims here involved are apparatus claims 4, 31, 32, 33, 34 and 36, and method claims 38 and 39.

The patent describes two forms of apparatus for making blocks of solidified carbon dioxide and a liquefying system. One form, with its associated equipment, is illustrated in Figs. 1, 2 and 3, and the modified form is shown in Fig. 5. According to the wording of the patent itself, the apparatus of Fig. 5 is operated in the manner previously described therein, that is, the machine of Fig. 5 may be used in place of that of Figs. 2 and 3 in the system illustrated in Fig. 1.

There is apparently no fundamental difference between the machine of Fig. 2 and that of Fig. 5. The machines of Figs. 2 and 5 are, respectively, horizontal and vertical forms of machines which include the same structural elements and the same relationship between those elements. They perform the same function and they produce the same result. Both of these machines include a chamber, a closure, a piston in the chamber, an inlet for liquid carbon dioxide and an outlet for unsolidified gas. Both machines are adapted to form solidified carbon dioxide and press it into blocks. Both forms of machine are to be used with the pressure-controlling and liquid-supply means of Fig. 1. The only means of maintaining a "definite" pressure [17] in the chamber, as shown in the patent, is an exhaustor, 81, and a by-pass or diaphragm valve, 84.

Process claims were not solicited in the application as filed. About seven years later the two method claims

were added by amendment dated November 18, 1935. (Ex. PP.)

During prosecution, applicants amended their claims to refer to a "closed chamber," apparently to avoid Elworthy No. 579,866. Every claim in suit indicates specifically that the chamber is sealed or closed, viz.:

Claim 4—"closed compression chamber."

Claim 31—"normally close and gas-tight."

Claim 32—closure to "seal the chamber gas-tight."

Claim 33—closure in "chamber closing position" is "to seal the chamber from the atmosphere."

Claim 34—"closed top" and "closing * * * and sealing the chamber."

Claim 36—"closing * * * to seal the chamber."

Claim 38—"closed chamber that is sealed from the atmosphere."

Claim 39—"chamber that is closed to atmosphere."

The application, as originally filed, was entitled "Snow Machine" and references were numerous to "snow." By subsequent amendment the words "solidified gas" were substituted for the word "snow." There is apparently nowhere in the application any reference specifically to "triple point" ice. Many amendments were made, as shown by the file wrapper, during the years the patent was being prosecuted in [18] the Patent Office, and interference was encountered. There were many objections entered by the Patent Office, and that undoubtedly accounted for many of the amendments. There was some confusion in the Patent Office as to just what was intended to be covered by the claims, and there seemed to be confusion in the contentions and proof of plaintiffs

both at that time and during the trial. The patent, as finally worded, in its first two lines, states: "This invention relates to improvements in gas solidifying apparatus * * *." In a Bill of Particulars filed herein, plaintiffs admit that they "do not assert in this case that any element of any of said claims is in and of itself new and patentable apart from the combination defined in the claims." In argument counsel said, "We are not contending and have not contended that any element of the combination of the patent in suit is new and novel in and of itself." (Page 2205 of the transcript.) "We are not claiming here that we have any great basic invention. The patent defines it as an improvement." (Page 2208 of the transcript.)

Judge Morris, one of plaintiffs' counsel, refers to the patent as covering a "universal" machine and process—which is a broad coverage, and one "devoutly to be wished" in the patent field.

In their briefs plaintiffs give a very broad conception to the applicants and to the patent a broad interpretation. At page 11 of what is described as their "Main Brief" they [19] state:

"Cole and McLaren conceived the idea that a large part of the liquefied CO₂ charged into a closed chamber, having properly controlled inlets for the compressed gas and properly controlled exit openings therefrom, could be solidified and pressed without tamping in that chamber into a block of really dense solid CO₂ of substantially uniform quality and texture, which would not have imprisoned and highly compressed therein any substantial amount of air or even of the CO₂ gas into which part of the liquid CO₂ would be converted during the charging

and solidifying operation, and that such solid block of CO₂ so formed would be so dense and structurally sound and strong that it could be released and discharged from that chamber, handled, transported long distances, and used, without tendency of the block to explode from internal pressure of the imprisoned gases or even to fracture or disintegrate.

“Cole and McLaren set to work to discover and develop means and methods to accomplish that purpose. They succeeded. The result of their efforts is found in the apparatus and the process of the patent and claims in suit.”

Defendants argue that plaintiffs are not, in that explanation, talking about the patent in suit, but about matters unrevealed by the patent and unknown to the evidence.

Much of the testimony offered at the trial related not to the claims of the patent in suit as worded, but to [20] plaintiffs' experts' conception, Exhibit 7, and to commercial operations which plaintiffs' expert had observed in the industry and which he did not even attempt, in some instances, to tie into the claims of the patent in suit. Much of Jones' testimony related to changes which he would suggest in prior art devices in order to build what he personally would consider a satisfactory commercial device—not those changes which would be necessary or required to meet the terms of the claims in issue.

Jones also testified that if the patent claims in suit involved invention in the apparatus of Fig. 1, that invention was in the exhaustor, 81, and the diaphragm valve, 84.

After much testimonial verbiage, the court finally asked Mr. Jones this specific question: "What do you consider to be new and in the nature of an invention about this patent in suit, as you understand the prior art which has been discussed here, and as you understand the information and knowledge to which the man skilled in the art had access at that time?" (Vol. 17, p. 1963, line 14, et seq.)

Jones answered, "As to the diagram in Fig. 1, there are several structural elements which I believe have novelty. One is the use of the diaphragm valve and exhauster in connection with the solidifying apparatus, and which, without discussing the sufficiency of what the specification says, shows an apparatus which works to produce what, so far as I know, is a new and useful result; that is, it *automatically* took care of the regulation of the pressure in the chamber, [21] and of the functions of a vent to atmosphere." (Vol. 17, p. 1964, line 9 et seq.) (*Italics supplied.*)

The invention was apparently then, according to Jones, in the ability to maintain a "definite" pressure within the chamber. Jones defined "definite" as "constant" or "uniform." He testified that those two devices, 81 and 84, maintained a pressure of one pound to less than zero gauge, in the solidification chamber during the entire cycle of operation of the machine. The exhauster, 81, functions to withdraw gas from the chamber and drive it into storage for re-use. Apparatus claims 31, 32, 34 and 36 refer specifically to "means for withdrawing the unsolidified gas from the chamber." Method claim 39 refers to the maintaining of a definite pressure in the closed chamber. This exhauster and valve were repre-

sented to the Patent Office, during the prosecution of the patent, as essential elements.

Plaintiffs' witnesses testified that certain experiences of Cole and McLaren, the patentees, had caused them to devise the exhauster and the diaphragm valve. Blocks of solidified carbon dioxide had blown up in their faces. The blocks which they were^e manufacturing were not stable and frequently disintegrated, due to gas and air content. So they decided to keep the pressure down during manufacture to one pound or less and void those difficulties and imperfections.

There is, however, some confusion in Jones' testimony because he spent a good deal of his time describing the [22] making of solidified carbon dioxide in a chamber designed to withstand pressures of 50 pounds or more. Triple point ice is made at a pressure of about 60.4 pounds, or higher. Commercially, that was the frequent practice in the use of the Cole and McLaren apparatus. In that operation it would be necessary to have a closed chamber. Otherwise, the exhauster, 81, would operate to reduce the pressure down to around zero gauge, and only snow ice could be made. One could not use the exhauster and diaphragm valve on an apparatus with an open vent to atmosphere because both air and gas would be sucked into the system, thus interfering with successful operation. To make triple point ice, the vent would have to be closed and 81 and 84 cut off, wholly or partially, by a valve (No. 80A) on the conduit line leading from the chamber to the exhauster (No. 80 of Fig. 1).

Jones in referring to Fig. 5 of the patent in suit said: "As to structural elements in the apparatus of Fig. 5, I see two elements there peculiar to its use with carbon

dioxide; the double jacket, 102, and the dividing or separating members, 110. But with those minor exceptions, I see no novel mechanical element in the apparatus itself whatsoever." (Vol. 17, p. 1963.)

It must be noticed in this connection, however, that the claims do not refer to a double jacket wall or chamber and do not include the separating members, 110. If those two items (81 and 84 on the one hand and 102 and 110 on the other) [23] are all there is to the invention of Cole and McLaren and to the claims of the patent in suit, then, manifestly, defendants do not infringe because they have no exhauster or diaphragm valve to suck gas out of the chamber. They use a vent open to the air. Nor do they use the double jacket or the separating members in the pressing chamber.

See: *Black Diamond Coal Mining Co. v. Excelsion Coal Co.*, 156 U. S. 611;

Wright v. Yuengling, 155 U. S. 47;

Derby v. Thompson, 146 U. S. 476.

Likewise, if all Cole and McLaren did by their invention was to improve the wall construction or the gas withdrawing means of an old combination, they claimed more than they invented in the patent in suit.

See *Lincoln Co. v. Stewart-Warner Corp.*, 303 U. S. 545, 549, 550, and cases there cited.

But counsel for plaintiffs do not seem to follow Jones and are unwilling to accept any such narrow construction or limited interpretation of the patent claims. Judge Morris says that the exhauster, 81, and the valve, 84, are not part of Fig. 5 or its claim, or requisite thereto (Pages 2269-70). He says that the statute required them to give

one example or way in which Fig. 5 could be made to function, and the patentee merely gave an example.

Mr. Caughey, of plaintiffs' counsel (Page 2230), when asked by the court to state "Just exactly what you claim was invention, just exactly what were the improvements to the [24] apparatus, just what were the method claims which were secured, properly secured, by Cole and McLaren through 'this patent,'" said in substance: The invention resided in envisioning that you could form carbon dioxide in a closed machine; then constructing a closed machine to do it in, which closed machine consisted of a closed chamber, close [24-a] in the respect that it would not come in contact with the atmosphere which would have a deteriorating effect on the product; that, without tamping, you could so distribute carbon dioxide solid so that it could be pressed in the same machine and could be pressed sufficiently so that it would give a commercial product in a closed machine; and the means used being hydraulic plungers to compress it, an hydraulically-operated platen below to hold against the pressure so that the machine could be thereafter opened so that the block could be removed.

Mr. Caughey said that he was referring specifically to Fig. 5 and to the fact that it did away with the necessity of tamping, which was inherent in prior art operations. He further said that the elimination of the tamping and the making and pressing in a closed machine, away from the atmosphere, in combination, was the invention. He felt that by a proper interpretation the claims were sufficiently broad to define the invention, making use of the knowledge of the prior art and the skill of those trained in the art.

Counsel for defendants feel that plaintiffs are very adroit in shifting their position to meet every objection; that they are extremely resourceful. However, defendants strongly urge—in fact, insist—that the claims of the patent in suit are all clearly invalid because of many fatal defects. They maintain that if one were completely to ignore the broad construction of the claims placed upon them [25] by plaintiffs and were to place a limited interpretation thereon, to the end that some, at least, of those claims could be held valid, they, the defendants, cannot be held to infringe. Defendants contend that in their H.P.M. and Frick presses they do not use a closed chamber; that they do not use an exhaustor and diaphragm valve; that they do not use a definite constant pressure during their cycle of operations. They say their chamber is opened to atmosphere during the formation of the block and before pressing, and that in triple point operations in the two presses the supply of liquid carbon dioxide is not shut off after a desired amount of solid is accumulated.

But defendants urge emphatically that the claims are all invalid and that those units of the industry—not yet owned or controlled by plaintiffs and their associates—should be relieved, once and for all, of the necessity of paying tribute to plaintiff's virtual monopoly predicated upon licensing under an invalid patent.

Defendants quote as being pertinent to the case at bar the statement of the distinguished Judge Learned Hand in *Kalamazoo Loose Leaf Binder Co. v. Wilson Jones Loose Leaf Co.*, 286 Fed. 715, at page 720:

"It is strange that 32 claims should be solemnly argued in 250 pages of brief, seeking to monopolize a substantial

business, with such a puny support behind them. The power of words is great, greater, I sometimes think, in patent [26] cases than in any others; but the result must depend upon the machines devised, and here nothing of consequence was devised. The whole paraphernalia of patents and claims, with their endless mutation of clause, stands in the end upon no addition to the art which the art did not inevitably bear in its bosom. It is merely a tribute to the instinct of salesmanship, and to the ingenuity, not of the supposed inventors, but of their able solicitors."

The eight claims of the patent in suit seem to the [26-a] defendants to hang by eight purely imaginary threads of inventive genius; but they are each firmly bolstered, artistically buttressed and elaborately supported by a structure of skilled representatives, patent experts, mechanical engineers, super salesmen, persuaders, business organizers and executives and geniuses of monopoly and protection.

One of these contentions of defendants requires particular and preferential treatment, and I think should be taken up first in order. It strikes at the heart of plaintiffs' case.

It is admittedly a fundamental principle of patent law that a valid patent may only issue to the first and original inventor. It is the contention of defendants that the patentees of the patent in suit, were not the first inventors, and that, therefore, the patent in suit is invalid. Manifestly, there can be no infringement of an invalid patent (*Williamette-Hyster Co. v. Pacific Car & Foundry Co.*, Ninth Cir., 122 Fed. (2d) 492).

It seems to the court that we should carefully analyze this contention of defendants that James W. Martin was the first inventor and that he not only made the invention, but [27] built the apparatus and subjected it to prior commercial use. To do this properly will take some time, but it seems to the court necessary because of the importance of the law involved and the application of the facts to the law. It is the contention of defendants that the structure of this Martin machine answers every requirement of the claims of the patent in suit; that the elements function in the same way; that they perform the same operation and that they obtain the same result as the Cole and McLaren machine.

The testimony on this question of prior invention and use by Martin is conflicting. We have, on the one hand, the oral testimony, at the trial, of James W. Martin and Walter Lee Hood. Supplementing this testimony is the testimony of Edwin G. Eppenbach, taken by deposition in New York on June 5, 1944, during the course of this trial, and partially supported by records. This testimony produced by defendants supports the prior public and commercial use of the unitary machine described.

Present and testifying at the trial were two witnesses for plaintiffs, Harry W. Cole and Malcolm W. McLaren, patentees of the patent in suit. Each of these witnesses contradicted to some extent the testimony of defendants' witnesses, particularly as this testimony related to conversations with Martin, Hood, et al. about the prior use of the Martin unitary machine. Each denied any knowledge of Martin's machine, either through oral conversations or by [28] seeing the machine in operation, or otherwise.

Plaintiffs, relying upon the decision in the Barbed Wire Patent case, 145 U. S. 275, and cases prior and subsequent thereto, contend that the evidence produced by defendants should be distrusted and discarded because it is merely oral testimony, not corroborated by documentary or real evidence.

The decision of the Supreme Court in the Barbed Wire Patent case is classic; and it has been explained by the Supreme Court and followed by the other federal courts through a long line of decisions. Before we consider the evidence, let us briefly review this line of authorities.

In the Barbed Wire Patent case, the court said, at page 284:

“We have now to deal with certain unpatented devices, claimed to be complete anticipations of this patent, the existence and use of which are proven only by oral testimony. In view of the unsatisfactory character of such testimony, arising from the forgetfulness of witnesses, their liability to mistakes, their proneness to recollect things as the party calling them would have them recollect them, aside from the temptation to actual perjury, courts have not only imposed upon defendants the burden of proving such devices, but have required that the proof shall be clear, satisfactory and beyond a reasonable doubt. Witnesses whose memories are prodded by the eagerness of interested parties to elicit testimony favorable to themselves are not usually to be [29] depended upon for accurate information. The very fact, which courts as well as the public have not failed to recognize, that almost every important patent, from the cotton gin of Whitney to the one under consideration, has been attacked by the testimony of witnesses who imagined they had made

similar discoveries long before the patentee had claimed to have invented his device, has tended to throw a certain amount of discredit upon all that class of evidence, and to demand that it be subjected to the closest scrutiny. Indeed, the frequency with which testimony is tortured, or fabricated outright, to build up the defense of a prior use of the thing patented, goes far to justify the popular impression that the inventor may be treated as the lawful prey of the infringer."

See also *Adamson v. Gilliland*, 242 U. S. 350;

Radio Corp. of America v. Radio Engineering Laboratories, 293 U. S. 1;

Electric Storage Battery Co. v. Shimadzu, 307 U. S. 5, 20;

Deering v. Winona Harvester Works, 155 U. S. 286;

Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U. S. 45;

Symington Co. v. National Castings Co., 250 U. S. 383;

Smith v. Hall, 301 U. S. 216;

Corona Cord Tire Co. v. Dovan Chemical Corp., 276 U. S. 358.

Coffin v. Ogden, 85 U. S. 120. [30]

This question has been before the Circuit Court of Appeals for the Ninth Circuit and has been most carefully considered in a number of cases. See, among others:

Waterloo Register Co. v. Atherton, 38 Fed. (2d) 75;

Rown v. Brake Testing Equipment Corp., 38 Fed. (2d) 220, 224;

Baker v. Dean, 80 Fed. (2d) 658;

Paraffine Companies, Inc. v. McEverlast, Inc., 84 Fed. (2d) 335.

It has also been before the Circuit Courts of other Circuits. For example:

Becker v. Electric Service Supplies Co., 7 C. C. A., 98 Fed. (2d) 366.

You gentlemen are all familiar with these cases and they have, many of them, been the subject of discussion during the progress of this case. Judge Denman, speaking for the Ninth Circuit in the case of Paraffine Companies, Inc. v. McEverlast, Inc., 84 Fed. (2d) 335, has stated the general rule governing this matter in an exemplary manner as follows, p. 339;

“The burden of proof on the issue of prior public use rests heavily upon the party seeking to show such use. Of such a defense the Supreme Court has said: ‘Courts have not only imposed upon defendants the burden of proving such devices, [31] but have required that the proof shall be clear, satisfactory, and beyond a reasonable doubt.’ Washburn, etc., Co. v. Beat 'Em All Barbed Wire Co., 143 U. S. 275, 284, 12 S. Ct. 443, 447, 36 L. Ed. 154.

“To the same effect are *Deering v. Winona Harvester Works*, 155 U. S. 286, 300, 301, 15 S. Ct. 118, 39 L. Ed. 153; *Eibel Process Co. v. Minnesota & Ontario Paper Co.*, 261 U. S. 45, 60, 43 S. Ct. 322, 67 L. Ed. 523; *Rown v. Brake Testing Equip. Corp.* (C. C. A. 9), 38 F. (2d) 220, 223. The rule has been recently restated, perhaps modified, in *Radio Corp. v. Radio Engineering Laboratories*, 293 U. S. 1, 7, 55 S. Ct. 928, 931, 79 L. Ed. 163, where the Supreme Court, speaking through Mr. Justice Cardozo, said: ‘Sometimes it is

said that in a suit for infringement, when the defense is a prior invention, 'the burden of proof to make good this defense' is 'upon the party setting it up,' and 'every reasonable doubt should be resolved against him.' (Citing cases.) Again it is said that 'the presumption of the validity of the patent in such that the defense of invention by another must be established by the clearest proof—perhaps beyond reasonable doubt.' (Citation.) The context suggests that in these and like phrases the courts were not defining a standard in terms of scientific accuracy or literal precision, but were offering counsel and suggestion to guide the course of judgment. Through all the verbal variances, however, there runs this common core of thought and truth, that one [32] otherwise an infringer who assails the validity of a patent fair upon its face bears a heavy burden of persuasion, and fails unless his evidence has more than a dubious preponderance.'

"We think the defendant's evidence in this case discharges 'a heavy burden of persuasion,' that it 'has more than a dubious preponderance,' and, in so far as evidence consisting entirely of depositions can do so, that it proves anticipation 'beyond a reasonable doubt.' " * * *

"What this court has previously said of a defense of prior public use, based entirely upon depositions, is applicable here: 'If this story is substantially untrue, it is willfully false, and constitutes perjury of the most flagrant type; it cannot be accounted for upon the theory of trick of memory or innocent mistake. * * * To reject such testimony taken as a whole, or to decline to believe it, would, in effect, be to nullify the provision of the statute, by exacting an impossible standard of evidence. The testimony is not contradicted, is not in-

herently improbable, and would, we think, be accepted as satisfactory and convincing, if not wholly conclusive, in any other kind of case, criminal or civil. *Rown v. Brake Testing Equipment Corp.* (C. C. A. 9), 38 F. (2d) 220, 224."

Without attempting to analyze at this time each of these cases and the many others in federal courts which have followed these general principles, suffice it to say that the [33] responsibility seems to rest upon the trial court carefully to examine evidence and thoughtfully to observe the atmosphere of judicial caution which seems to permeate these decisions. These cogent admonitions do not mean that the trial court should forget the fundamental principles of evidence, nor that he should discard credible testimony merely because it is oral and because it deals with events and circumstances long past. The trial court must, however, examine the evidence most critically and must bring to bear, upon that judgment of credibility, all of his training and experience and all of his knowledge of the propensities and vagaries of human beings. [34]

Let us then consider as briefly as is possible under the circumstances—manifestly we can't be very brief because of the amount of testimony involved and the importance of it—the evidence having to do with this particular point.

Martin is a distinguished engineer, an inventor, and a man who was scientifically interested in the solid carbon dioxide industry almost from its beginnings. He was an engineer in a position of responsibility for a predecessor of one of the plaintiffs in this case, *Prest-Air Corporation*, and a professional man who is entitled to a respectful hearing.

He went to the Prest-Air Corporation as early as January 16, 1925. Martin's testimony is, in effect, as follows: I am going to be rather full about it, because I think it is important.

When he first came to work for that corporation, one Pierre E. Haynes gave him a sketch of a machine similar to that shown in the Haynes British patent, Ex. M. That sketch was of a character sufficient to permit an engineer, or even a good all-around mechanic, to build the machine. He, Martin, made drawings of this machine, which was a unitary machine designed to make solid carbon dioxide and press it into a block. This work was done about February, 1925, and the machine similar to that shown on Ex. L was built by Eppenbach, Incorporated, or some concern under the immediate direction of Edwin G. Eppenbach. This first machine was [35] placed in operation at the Maspeth plant of Liquid Carbonic Company on Long Island, a stock owner of one of the many predecessors of plaintiff, sometime early in March, 1925. He particularly remembers that the working drawings were made in January and February, 1925, and he has reason to remember the date. His wife had just moved up to New York with their young child and had taken an apartment of one of his friends at Columbia University, and she was very much disturbed as to the amount of time he had to spend at the plant, thus leaving her alone in New York City.

This Haynes-Martin sketch for the machine was left with Dry Ice Corporation, the successor of Prest-Air, and predecessor of one of the plaintiffs in this case. At the trial Martin presented an explanation of this machine in sketch form. (Ex. M.) This sketch was made just be-

fore the trial but, the witness testified, was made from his clear memory as to what was constructed by Eppenbach under his direction.

Some changes he said were made in the machine during the months of March and April, 1925, although the first machine was actually placed in operation at Maspeth in March, 1925. The first change was the removal of the cylindrical snow chamber and the introduction of the liquid carbon dioxide at the base of the cone. The second modification was to take off the cone and to place a screen in the gas return line. The turn modification was the use of a wedge-shaped screen and the introduction of liquid carbon [36] dioxide directly into the side of the pressing chamber.

Two of these machines, as indicated by Exs. L, O, P, were in actual operation at least until July of 1925, and dry ice blocks made on the machines were actually sold to customers for some months. Martin estimated that between 15 and 20 tons of blocks were made on these machines and actually sold prior to July, 1925. Walter L. Hood was in charge of production at Maspeth for the period between April and July of 1925.

In the early months of 1925 there was not yet developed in this country a ready market for solidified carbon dioxide, although dry ice was put into ice cream cabinets, Eskimo-Pie jars, etc. An ice cream company in Philadelphia used the product made on the Martin machine to ship ice cream into New York. This Martin unitary machine was designed to make blocks of dry ice about 3-1/2 inches square and about 7 or 8 inches long.

Just before the heavy demand for the July 4th trade, at least one snow tank was placed in operation at Maspeth

by Dry Ice Corporation, and several were ordered for the making of the larger blocks—10 x 10 inches.

Between April and June, 1925, Schraft's put dry ice in their windows in New York as a matter of curiosity. These blocks of dry ice were readily accepted by the trade and the volume of business became so heavy that the trade could not be supplied. Some of the customers insisted upon [37] larger blocks of dry ice, usually 10 x 10-inch blocks, and these had to be made on snow tank machines as the Martin unitary machine only made blocks of about 3-1/2-inch square.

The apparatus shown on Exhibits L, O, and P, were openly used in manufacturing operations at the Maspeth plant, so that anyone who wished might come in and see them. About September, 1926, Dry Ice Company's operations were moved from Maspeth to the General Carbonic plant at Sixth and East River, Long Island.

It cost about \$2,000 apiece to build the first unitary machine or machines in 1925. The snow tanks only cost about \$400. It would cost about \$10,000 to make a unitary machine to produce the 10-inch blocks and would take some time to make; so they installed the snow tanks. One of these unitary machines was stored in the yard of the General Carbonic plant after the move was made.

While the company was conducting its operations at the General Carbonic plant, Martin discussed the making of solid blocks of carbon dioxide with Malcolm W. McLaren who was Superintendent at the General Carbonic plant. Mr. Hood and two other employees, Mr. Fitzpatrick and Mr. Sherwood, were sometimes present. During these conversations Martin discussed with McLaren the possibilities of doing pressing and tamping and snow

formation all in one housing so as not to waste gas. These conversations occurred almost immediately after the move to General Carbonic in September, [38] 1926.

Martin further testified that the machines used by Martin and described on Exhibits L, O, and P, meet, structurally, all the requirements of the patent in suit. The machine consisted of a pressing chamber provided with a closure. The closure was a plate removably attached to the end of the chamber by means of a C clamp (9R. 962). The machine was provided an inlet for the liquid CO₂ and it included a pressing plunger movable within the chamber. The blocks were ejected by the piston (9R. 964).

The unitary Martin press was operated to make individual blocks and as an extrusion press (9R. 963). The walls were one inch thick and capable of withstanding high pressures. Some difficulty was encountered in driving the plunger of the press when high pressures existed within the chamber, so a relief valve to atmosphere was put in. Both snow blocks and triple point ice were made on the machine. The pressing plunger did not operate continuously, liquid CO₂ being injected into the pressing chamber while the piston was stationary. After snow was formed in the pressing chamber and injection of liquid discontinued, the vent to atmosphere was opened and then the piston was operated to compress the snow into a block against the closure plate, which was held in place by means of a C clamp. The plate was removed to permit the block to be discharged, and then replaced.

Martin testified that the large unitary machine capable of producing the 10 x 10 blocks was not made because Dry Ice [39] Corporation did not have the money and

it would have been necessary to make new patterns and increase the proportions of the entire machine but no changes in principle of operation or of design were contemplated. Dry Ice Corporation was not reorganized and did not procure any additional capital until the fall of 1927.

Martin made a very good impression upon the court. He seemed to be trying to tell the truth with meticulous care and to remember exactly how the machine was designed, constructed and operated. The fact that he was not sure of every detail impressed the court as indicating the conscientious nature of his testimony.

Martin left the employ of the Dry Ice Corporation in late 1928, and has since that time not been connected with the plaintiff corporation or any of its predecessors. He has no financial interest whatsoever in the defendants. It did not appear that he was attempting to color his testimony in any way either in favor of or against any of the parties to the litigation. He is not the ordinary casual observer witness, nor even the ordinary lay witness. He is a highly trained mechanical engineer who was interested professionally in dry ice and its manufacture and one who would naturally remember design.

After he had appeared in court, Martin's deposition was taken in New York following the deposition of Mr. Eppenbach. By the testimony of Eppenbach, Martin's memory was refreshed. [40] He then stated that several unitary machines of the L, O, P type were made and delivered and that three of those came from one Purvis. His memory was refreshed as to the nature of the work done by Eppenbach and the reasons for returning to the snow machine operations. Some slight discrepancies

in testimony and Martin's failure to remember some details in the first instance seem only natural to the court.

Walter Lee Hood is also an engineer of standing and ability, a resident of Houston, Texas, not now engaged in the dry ice industry in any way, or in any way financially or otherwise interested in the plaintiff or defendant companies.

Hood testified substantially as follows: He was employed by Dry Ice Co., predecessor of plaintiffs, about the 10th of April, 1925. Prior to that time he had been with Carbide and Carbon Chemical, but he left that company at the end of March, 1925. He went directly to work for Dry Ice Corporation at the Liquid Carbonic plant at Maspeth, Long Island, about April 10, 1925.

He testified that when he first got there they were using a unitary machine consisting of a cylindrical tank with a funnel bottom in which snow would form leading into a pressing chamber. The machine was provided with an inlet for [41] liquid CO₂ and a gas outlet. A pressing plunger operated in the horizontal pressing chamber and compressed the snow into blocks 3-1/2 inches square by 8 inches long, against a closure plate held by a C clamp. The walls of the chamber were about one inch thick to withstand pressure.

When he actually got down to work in the middle of April, 1925, the machine was working. He testified that Exhibit L represented the machine being used at that time in diagrammatic form.

In describing the operation of the machine he testified that liquid CO₂ was supplied to the chamber (14 R. 1613), that the chamber was closed or sealed to the

atmosphere (14 R. 1613), that the liquid CO₂ so supplied was in part converted to a solid and in part to a gas (14 R. 1614), that the supply of liquid CO₂ was shut off after the solid was formed and before the compression of the solid into a block (14 R. 1616). The snow was compressed against the plate (15 R. 1650). After being compressed into a block, the closure plate was removed and the block kicked out.

He testified that he was entirely familiar with the snow tank method of operation and that in June of 1925 the company began to use the snow tanks for making snow for blocks of both sizes, 10 x 10 and 3-1/2 inches. He said that in June, 1925, a second unitary machine of the type of Ex. L was delivered to Maspeth and he thought possibly also a third machine. He substantiated the testimony of [42] Martin as to the general design of the machine and as to the changes made in it. He remembered directing the installation of the liquid CO₂ inlet directly into the side of the pressing chamber (14 R. 1584).

He stated that the machines were located in the corner of the compressor room of the Liquid Carbonic Co. plant at Maspeth; that they had a lot of visitors; and the unitary machines were open to the public and they never had any instructions not to let the public into the plant. One of these unitary machines was kept in the building there at Liquid Carbonic, after they started using the snow tanks to expedite manufacture to meet the demands; and the second one was just outside the door along the building; both machines being visible to anyone who went by, being merely covered with grease to protect them.

He substantiated in general the statements of Martin as to oral discussions with McLaren in which the unitary machine was described to McLaren and his Italian superintendent. He said that they told McLaren that it was an enclosed unitary machine not exposed to the atmosphere and did not lose carbon dioxide; that the gas went back into the system and stayed in. He said he gave McLaren as definite a description of the unitary machine as he was able to do. He cannot remember the exact words but he knows it was as complete a description as he, a trained engineer, was capable of; that he is sure that he told McLaren that there was one of these [43] machines at Eppenbach's.

Hood is sure that Mr. Cole, the other joint inventor, was present at some of the conversations and that neither Mr. McLaren nor Mr. Cole ever told him that they were working on a unitary machine of that type.

Hood left Dry Ice the first of May, 1929. He stated that the troubles they had with the unitary machine were not sufficient to prevent their operation to produce ice commercially. They made ice with the machines every day from April 10 until after July 4, 1925, and kept shipments moving all the time. They could not fill the orders and had to ration people. He said that each of the machines with the various modifications they made was used to produce solid blocks of carbon dioxide which were sent out to customers. He personally attended to pick-up sales (14 R. 1577-1578) and testified a daily shipment was made to Canada (14 R. 1579). He said that the unitary machines were used concurrently with the snow tanks for a time, to speed up production. They put in more snow tanks after June, 1925. He described

the unitary machines in substantially the same way as they were described by Martin and was not shaken in his testimony by cross-examination.

As was the case with Mr. Martin, the court was much impressed by the testimony of Mr. Hood. He seemed to be a clean-cut, thoroughly trained engineer, entirely unprejudiced, attempting to tell the truth exactly as he remembered it. [44] There are some slight discrepancies between the testimony of Hood and Martin but this failure to agree on every detail seems to strengthen—rather than weaken—the testimony.

As said by the judges of this Ninth Circuit Court in *Wilson & Willard Mfg. Co. v. Bole*, 227 Fed. 607, at page 611:

“The appellees criticize the testimony relating to the conference of February, 1911, because of certain discrepancies in the testimony of the different witnesses as to how the conference was called, what was said, who was present, when and where the conference was held, etc. These minor discrepancies tend to strengthen rather than weaken the testimony. The witnesses were testifying to what transpired more than four years before the trial, and if they all agreed upon every detail it would afford strong and convincing proof that their testimony was prearranged.”

On cross-examination, counsel for plaintiff carefully interrogated Mr. Hood as to his interest in the case and as to his reasons for remembering certain things. Hood was not shaken in his testimony. He described the operation of the machine in detail and his memory as to events and circumstances was extremely good. As a trained engineer his memory as to design would naturally be

good. He said that the idea of building a unitary machine to make the 10 x 10 blocks was still alive when he left the company in 1929.

Mr. Hood testified that he had known Mr. Martin ever since he came with the company in April, 1925, but that he [45] had not talked with Mr. Martin about this litigation. He said that he arrived in Los Angeles on Friday night about 10:30, while the trial was in progress; that he saw Mr. Martin several times between then and the next Monday when Martin left for his home in New York, but intentionally did not talk to Mr. Martin at all about the testimony in the case. He had not heard Mr. Martin testify; he never saw the exhibits; and he was never told how Mr. Martin had testified. He said he had seen Mr. Martin at intervals of a couple of years since he left Dry Ice Corporation in 1929, but had just had general conversations with Martin and had never discussed this litigation with him. He had not seen Mr. Martin in Texas within the last several months before he came here, and the words "Dry Ice" were never mentioned between them during the fourteen months prior to his testifying.

Counsel for plaintiff seem to feel that it is almost [45-a] inhuman to believe that Martin and Hood did not talk over their testimony before they went on the stand. The court is convinced that Mr. Hood was telling the truth and giving the facts just as he remembered them; and that he was not coached either by Mr. Martin or by either of the attorneys for the defendants.

Hood remembered particularly telling Mr. McLaren all about the unitary machine in Maspeth about October, 1926 because he said that the existence of such a unitary

machine and its availability was the only argument the company had to meet Mr. McLaren's objections that they were wasting too much carbon dioxide by the snow process.

Hood was easily able to fix the time when he came to the Maspeth plant because he had reason to know that he left the Carbide and Carbon Chemical at the end of March, 1925 and went directly to Dry Ice Corporation.

The deposition of Edwin G. Eppenbach was taken in New York after the court refused to admit certain of the account sheets from Eppenbach's books of account. (Ex-R for identification, later Ex. VV.)

Mr. Eppenbach testified that his business was on Long Island; that he had been engaged in business for 30 years in [46] the same location. He builds machinery. In 1925 he had between 20 and 24 men; was the Secretary-Treasurer and half owner of the company. He said that they started some work in 1925 for Prest-Air Corp., which later became Dry Ice Corp. of America. He dealt with Mr. Martin, Mr. Gray, Mr. Fitzpatrick and Mr. Black.

He assisted in the design of the equipment and built six machines, three himself, and three he had built by a friend of his, Mr. Purvis of Brooklyn. The first one was experimental and was built under his supervision. He had both a pattern and a machine shop; assembled the machine and set it up in the Liquid Carbonic plant in Maspeth for Prest-Air Corp.

He had his duplicate bills showing the first entry for Prest-Air Corp. on August 11, 1924. He had billings to Prest-Air from the date of the original entry off and

on through 1925. He said that in 1925 he made a compressor-type of machine for Prest-Air that was designed to compress dry ice into 7 or 8 inch lengths 3 or 4 inches square. He described the machine briefly and its action and said they set up that machine at the Liquid Carbonic in Maspeth and built two or three machines all together in 1925—the second and third machines being practically the same as the first. He stated that he saw the machine in operation with the pyramid-shaped screen on it which had been billed on April 25, 1925.

He thinks that the second machine was billed to [47] Prest-Air on May 4, 1925 at the price of \$2,721.60, and that the bill was paid on August 27, 1925. He remembered other apparatus built for the company.

On cross-examination, Mr. Eppenbach says that he and Mr. Purvis delivered six machines to Prest-Air or Dry Ice, and that he saw all six machines out at the Maspeth plant in September, 1925; and that he also saw one at the General Carbonic about the same time.

He thinks he first met Mr. Martin in October of 1924 because they started working for Prest-Air on this type of apparatus in August or September, and it was 2 or 3 months later that he met Mr. Martin.

The last use that he knew of by Dry Ice for the machines that he or Purvis built for them was in September, 1925, at which date he knows they were using them. After that his mind was turned in other directions.

It is but natural that Mr. Eppenbach should not have the detailed information of Mr. Martin or even of Mr. Hood, but it is significant that the records produced seemed to substantiate the dates upon which the events occurred. The court is satisfied that the testimony showed

truthfully what happened in the late winter, spring and early summer of 1925. It is satisfied that the unitary machine as described in Exhibit L, O and P was built, that it was operated successfully and that it produced a commercially satisfactory dry ice. In other words, that it was commercially a success. [48]

While the corroboration of the testimony of Martin and Hood was in some instances sketchy, it was in many instances well documented by the books of account of Eppenbach. (Ex. VV.)

In many ways the testimony of Martin and Hood is very strong. They are not ordinary lay witnesses. They are highly educated, clean-cut engineers; men of executive experience and capacity, trained to think and remember. They are not financially interested in the case and there seems no possible reason to believe that either one would take the stand and testify to anything other than the exact truth as he remembered it. It is not surprising that these men remember specifically the design of a machine. That is their business. Both of them took great pride, apparently, in their connection with a new industry and its possibilities scientifically and commercially.

Martin was looking constantly for outlets for the product in the business world. He knew the problems which confronted the industry from a practical standpoint. The fact that he did not pursue the use of this unitary machine is of no particular moment. He was under orders. His mind may have been diverted to other channels by professional engagements. After all, he was working for a corporation and presumably did what he was told. There is no evidence that the machine L, O, P,

did not operate successfully to produce a commercial product. [49]

The reasons given by both Mr. Martin and Mr. Hood for the more or less temporary discontinuance of the use of this unitary machine making the $3\frac{1}{2} \times 3\frac{1}{2} \times 7$ or 8 inch blocks seem to the court reasonable. Many sound reasons may cause a machine to be supplanted temporarily or permanently. The management of corporations changes; different interests predominate; many things happen which cause a change in plans, but the discontinuance of the use of a machine does not mean that that machine did not exist as testified, nor that that machine did not perform its functions successfully so as to prove a prior use under the patent statutes.

Nor is the fact that Martin did not attempt to patent it an impressive argument. He may have thought its mechanical principles were all revealed in the prior art, and that it was not properly patentable. He may have dedicated it to the public, etc., etc.

Now what is the testimony of plaintiffs in conflict with the testimony of Martin, Hood and Eppenbach? It is the testimony of the two patentees. Harry W. Cole, who was Manager of the General Carbonic plants in 1924, and was later employed by Liquid Carbonic Corp. as a District Superintendent until December, 1930, says that Dry Ice Co. came out to the plant operated under his direction in May, 1925, and remained there until late in September, 1926.

He is an officer and director of one of the plaintiffs and he, jointly with Mr. McLaren, assigned the patent to the [50] predecessor of the plaintiffs in suit. He was also a director and an officer of the other plaintiff. He

and his family own a 30% interest in Metropolitan Carbonic Co. which owns 25% of the common stock of International Carbonic Engineer Co., the parent corporation, and all of the stock of the other plaintiff is owned by the parent company.

He receives a salary from one of the plaintiffs. He is still interested in the sale of solid carbon dioxide.

He says that he never saw any of the devices such as shown by defendants' Exhibit L, O and P, and no one ever described to him such devices. He particularly denies that Mr. Martin or Mr. Hood ever did. He even denies ever having had any discussions with Mr. Hood other than just passing the time of day. He says significantly that the only conversations he ever had with Mr. Martin were with regard to wasteful procedures of the Dry Ice Company and the unnecessary loss of carbonic gas due to improper operations and the maintenance of inefficient snow tank devices which they were using in the plant.

The other witness for plaintiff, Mr. McLaren, testified that he is also one of the patentees of the patent in suit; that he is now employed by the Liquid Carbonic Corp. but that he is not connected with the plaintiffs. He admits, however, that he and his family own one-third of the stock in the Metropolitan Carbonic Co. which owns 25% of the stock of one of the plaintiffs, as previously indicated by the [51] testimony of Cole. He also testified that he came out here from New York to listen to this case at the request of the plaintiffs, with his expenses paid, and, if needed, to testify.

He is one of the joint patentees and assigned his interest in the patent to predecessors in interest of the plaintiffs in suit. He testified that at no time did Mr.

Martin ever state to him that he had pressed, solidified and tamped carbon dioxide in a unitary device which he had operated prior to Dry Ice coming to the Long Island plant, and denied that Mr. Hood ever made any such statement to him. He denied also that he had ever seen any such machines as shown on Exhibit L, O and P, and said that neither Mr. Martin nor Mr. Hood had ever at any time described such machines to him. He says that he had conversations with Mr. Hood and Mr. Martin during all the time that Dry Ice Corp. was at General Carbonic plant at Long Island City, and that these conversations only concerned the loss or waste of gas in the operations of Dry Ice.

It is significant as to the attitude of Mr. McLaren that he admits frankly that several of the sworn statements in his patent application are untrue and were known to him to be untrue at the time he signed the application. This is significant not only as to the testimony of the witness McLaren, but as to the philosophy of those with whom he was associated; seeming to indicate a philosophy that "the end [52] justifies the means."

Frankly, the court was not favorably impressed by the testimony of either Mr. McLaren or Mr. Cole. It is possible that their memories are at fault after a lapse of so much time. The marked business success of the company which acquired the Cole and McLaren patent, the independence which it brought them, the prestige which came to them because they were the supposed inventors of the basis for all this success, the fact that they have both of them been constantly engaged in the carbon dioxide industry for many years—all of these things and many more which may be readily brought to mind, might easily dull the memories of any man.

Recently I was visiting in a strange city and was entertained at luncheon by a group of old college friends of mine. They had, just prior to that time, been entertaining a man well known in public life who had been in college with us. He told them in great detail how an experience which he had as a freshman in college almost caused him to be eliminated by the faculty. These friends of mine were very much amused because they happened to know that these things hadn't happened to the statesman at all but they had happened to another friend of ours. In fact, all of us were probably particeps criminis. Now, not a man there thought that the statesman was intentionally lying about the matter. He had thought about it so much during the years and had heard it talked about so much, and had given so much [53] credit for it, that he had come to believe that he was the center of the escapade. He was not even in it. And so it may well be with Cole and McLaren.

Then too, it's a human frailty to forget where one's brilliant ideas come from. We judges in the federal court too often see ideas taken bodily from the public domain, or from some earlier creator—many times unconsciously and without intention to plagiarize.

The court firmly believes that Martin constructed and commercially used a unitary machine for solidifying and pressing carbon dioxide into blocks at least as long ago as the first part of 1925, more than two years before application was made for the patent in suit.

The court further believes that the structure of the Martin machine so built and used answers every requirement of the apparatus claims of the patent in suit and that no inventive changes would have to be made in the

Martin machine to come within the claims of the patent in suit. The court feels that the function of the elements in the Martin machine is identical with the function of the elements of the Cole and McLaren machine; that the operation of the Martin machine is that defined in the method claims of the patent in suit; and that the same results are obtained by the two machines. [54]

Likewise, in the opinion of this court, each claim of the patent in suit is invalid for lack of invention, in view of the state of the art as established by the evidence and as really admitted by plaintiff's witnesses. Let us see something of what the evidence shows was known to a man skilled in the art, or what could readily have been determined by him without invention, prior to the earliest date of invention claimed by Cole and McLaren as the subject matter of the patent in suit, as follows:

(1) Since 1907, carbon dioxide solid was known as an article of commerce.

(2) The triple point conditions for forming solid CO_2 were known to a man skilled in the art, and the Slate patent, No. 1,546,681, was available and clearly taught the conditions.

(3) The proper thickness of walls to sustain the desired pressure was easily obtainable by a man skilled in the art.

(4) The commercial size of the block was well known to a man skilled in the art, thus enabling him to make his press chamber 10 x 10 inches or a multiple thereof, and was not invented by Cole and McLaren.

(5) The proper nozzle or inlet to supply liquid CO_2 to [55] the apparatus was well known and easily obtainable by a man skilled in the art.

(6) Knowledge was available to permit the ready determination by a man skilled in the art of the volume of gas generated when the liquid carbon dioxide was introduced into the chamber.

(7) Knowledge was available to enable the ready determination by a man skilled in the art of the relative size of the inlets and outlets to the chamber.

(8) It was common practice in the industry to press the carbon dioxide into blocks at atmospheric pressure.

(9) Exhausters of the type employed in the patent in suit were commonly used in the carbon dioxide industry.

(10) The method of installing and operating exhausters of such type were familiar to those skilled in the art.

(11) It was not necessary to tamp triple point carbon dioxide before pressing it into a block.

(12) The means for controlling atmospheric pressure for pressing operations was well known in the art.

(13) Laboratory devices for compressing carbon dioxide snow were used prior to May, 1926, similar in a general way to the Flemming and Julius patents.

(14) Presses which included a chamber with a movable or removable head and a plunger capable of compressing material in the chamber against the head were known prior to 1920 and were used for pressing ceramic tile, brick, [56] plastic, and cottonseed.

(15) Prior to May, 1926, the literature disclosed devices which includes a chamber in which carbon dioxide is formed by the evaporation of the liquid and in which it is compressed.

(16) The snow tank method of making blocks of CO₂ was known to Jones, Cole, and McLaren and those skilled in the art, and included:

(a) A closed chamber.

(b) A liquid CO₂ inlet provided with a valve connected to the chamber.

(c) A CO₂ gas outlet provided with a valve and connected to the chamber.

(d) An inlet valve for the chamber which was shut off when a desired mass of solid carbon dioxide was accumulated in the chamber.

(e) A press comprising a chamber having top and bottom movable platens for pressing the snow from both top and bottom.

(f) The press was actuated by hydraulic means.

(g) The solid CO₂ was compressed at atmospheric pressure.

(h) The pressure in the snow forming chamber varied, probably going above 30 pounds.

(17) That the temperature of the liquid carbon dioxide supplied to the snow chamber affected the yield of snow was known to a man skilled in the art. [57]

(18) Since 1920 it was known that pressing a material from both the top and bottom increased the density of the product.

(19) It was necessary during the compression of solid CO₂ into blocks to permit the gas to escape in order to produce a stable block.

(20) It was known that solid carbon dioxide could be formed by discharging liquid carbon dioxide into an air-tight gas-tight chamber and relieving the pressure thereon.

(21) It was known that in order to perform such solidification it was necessary to withdraw carbon dioxide in gaseous form from the gas-tight chamber.

(22) It was known that solid carbon dioxide so produced could be compressed into blocks as a commercial commodity.

(23) It was known that there were sublimation or gas losses involved in handling the solid CO₂ between the snow tank and the press in the Martin process.

Without taking the time to analyze these various items in detail, let us see also what the prior art patents and patent applications disclosed.

The following patents disclosed solidification of carbon dioxide and its compression into blocks:

Flemming, 955,454 (tab 8) (of Ex. EE);

Julius, 1,018,568 (tab 9);

Slate 1,546,681 (tab 15); 1,546,682 (tab 16); 1,643,590 (tab 18); [58]

Slate British, 237,681 (tab 28);

Josephson, 1,659,431 (tab 19);

Martin, 1,659,434 (tab 20); 1,659,435 (tab 21); and 1,887,692 (tab 24);

Elworthy British, 7436 (tab 27);

Haines, 263,922 (Ex. M).

The tabs I am referring to are those of Exhibit EE.

The following patents disclose a unitary apparatus combining in one housing both the solidifying and the pressing: Martin, Elworthy, Flemming, Julius, Slate 1,643,590, British 237,681, Josephson.

The following prior art patents disclose the elements of the claims of the patent in suit with the mode of operation of the apparatus of the patent in suit: Cartier, Saylor, Holden, Drummond, Gaylord, Osborn, Stastney, Kochenderfer and Voightlander.

See: United States Hoffman Machinery Corp. v. Pantex Pressing Mach., Inc., 44 Fed. (2d) 685, 688 (C. C. A. 3rd 1930).

Floridin Co. v. Attapulgas Clay Co., 125 Fed. (2d) 669, 671 (C. C. A. 3rd 1941).

Carbide & Carbon Chemicals Corporation v. Texas Co., 31 Fed. (2d) 32, 33-34 (C. C. A. 5th 1929).

John Bean Manufacturing Company et al. v. Creagmile et al., 123 Fed. (2d) 182 (C. C. A. 9th).

The application of each of the claims in issue to the devices described in the foregoing patents is apparent. [59] Each of the claims in suit may be broken up into its separate elements and applied to practically all of these patents to show the applicability of such claims to the disclosures of the prior art patents. We believe that every element and every operation specified in every claim of the patent in suit is fully and completely disclosed in these prior art patents. No material or inventive change is required in reading the apparatus claims of the patent in suit upon the disclosures of Martin 1,887,692, Flemming 955,454, Julius 1,018,568, Slate 1,643,590, or Slate British 237,681.

Most of the prior art patents require only slight changes, even according to the testimony of plaintiffs' expert, Jones, to meet the terms of the claims in suit; and these slight changes were, even as of 1925, known and obvious to a man skilled in the art. In most instances it didn't require much, if any, mechanical skill to step from a particular disclosure in the prior art to the claims in suit. Generally speaking, those changes suggested by Jones include only the provision for a proper inlet, a proper outlet, changing or closing perforations, varying the size or proportions of the machine, etc.

Professor Clapp, distinguished expert for the defendants, was asked at page 1393 of the record whether or not a man skilled in the art in 1925, who had sufficient skill and knowledge to supply the deficiencies in definite description of the patent in suit, would encounter any difficulty with the prior art before him in constructing the apparatus of [60] the patent in suit. His answer was "No, such a man would have no difficulty."

It is also contended by defendants that all of the claims of the patent in suit are invalid because of failure to comply with the provision of R. S. 4888; that there is no adequate description of the purported invention; many controlling factors of the processes and of the machine, purportedly covered thereby, being undisclosed. Admittedly, the patent does not teach:

- (1) Strength of walls;
- (2) Size of chamber with respect to inlet;
- (3) Type of nozzle, if any;
- (4) Size of inlet with respect to outlet;
- (5) Position of inlet;
- (6) Position of outlet;
- (7) H/D ration;
- (8) Amount of snow to be formed to obtain a stated density;
- (9) Pressure in chamber before liquid introduced;
- (10) Pressure to which snow is to be compressed;
- (11) Density to which snow is to be compressed;
- (12) Bottom pressing;
- (13) Pressure before pressing;
- (14) Different pressure at different periods in cycle; [61]

(15) Capacity and size of exhauster;

(16) Triple point process.

Plaintiffs' expert admitted that knowledge of these variables and factors was necessary to construct and operate a machine of the patent in suit. (5 R. 445-452; 15 R. 1875-1890; 3 R. 284.)

"Section 4888 of the Revised Statutes, 35 U. S. C. §33, requires that the applicant for a patent 'shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery.' As the court recently stated in *General Electric Co. v. Wabash Corp.*, 304 U. S. 364, 369:

"'Patents, whether basic or for improvements, must comply accurately and precisely with the statutory requirements as to claims of invention or discovery.' * * *

"To sustain claims so indefinite as not to give the notice required by the statute would be in direct contravention of the public interest which Congress therein recognized and sought to protect. Cf. *Muncie Gear Works v. Outboard, Marine & Mfg. Co.*, 315 U. S. 759."

United Carbon Company et al. v. Binney & Smith Company, 317 U. S. 228, 232, 233.

See also *General Electric Co. v. Wabash Appliance Corp.*, 304 U. S. 364; *Universal Oil Products Co. v. Globe Oil & Refining Co. etc.*, 61 U. S. P. Q. 832, No. 392, Sup. Ct. U. S. May 29, 1944, page 11, and cases there cited; *R. H. Cosmey Co. [62] v. Monte Christi Corp.* (3 C. C. A.), 17 Fed. (2d) 910.

It seems clear to the court that if a man could take the specifications of the patent in suit and build a machine and make it operate by adding inlets and outlets,

by placing these in the proper places, by getting the proportions correct, by determining correct pressures, etc., etc., that that same man, skilled in the carbon dioxide art, could apply to the same skill and knowledge to prior art devices and successfully operate them also. If the liberal construction of the patent in suit urged by plaintiffs is to be permitted, then the same rules of construction must be applied to the prior art and the patent would read directly thereon and be invalid.

Plaintiffs' expert, Jones, admitted on the stand that the patent was not a complete disclosure but insisted that a man skilled in the art could build the machine and make it operate, supplying the missing factors by experimentation. This fact impresses the court: If the device and method are as satisfactorily defined as claimed by plaintiffs, why was it thought necessary to spend so much time and energy at and prior to the trial in an attempt to explain just what the patent covered?

Admittedly, the claims of the patent in suit do not disclose many factors; they seem vague and indefinite as to some, expressly limited as to some, and totally silent as to others. [63]

Plaintiffs' attempt to avoid the effect of the foregoing by asserting that the claims must be read in the light of the specifications. Granting the correctness of that assertion as a matter of principle, the difficulty is that the specifications cast little or no light. They are, in regard to the matters in question, as unilluminating as the claims themselves. In view of the admissions of plaintiffs' experts and the deficiencies of the claims and the specification, the claims of the patent in suit do not answer the requirements of R. S. 4888.

If these deficiencies may be made up, as claimed by plaintiffs' counsel, by admitting that at the time a man [63-a] skilled in the art possessed ample knowledge and skill to supply them; then applying the same principle to the prior art, and placing plaintiffs' construction upon the claims of the patent, they are invalid as reading upon the prior art.

Now plaintiffs say that they are entitled, because of the apparatus claims, to all of the uses to which that apparatus may be put. They claim a combination. Manifestly, they are entitled to use that combination—conceding for the purposes of argument that such it is—for any purpose for which it is properly adapted. But they may not change that combination so as to change its mode of operation and it must be remembered that the same principle applies to the devices in the prior art, and that plaintiffs' claims must be held invalid as reading upon that prior art.

In connection with the foregoing, let us look at the method claims 38 and 39. These claims were added nearly eight years after the original application.

Claim 38 purports to be a method of producing blocks of "solidified gas" which includes certain steps:

(a) Supplying a liquefied gas to a closed chamber that is sealed from the atmosphere;

(b) Converting a portion of the liquefied gas to a solid and a portion to a gas by expansion;

(c) Maintaining the chamber volume constant while expanding the liquefied gas; [64]

(d) Accumulating a mass of solidified gas therein;

(e) Withdrawing the unsolidified gas from the chamber during formation and accumulation of the solidified gas in the chamber;

(f) Shutting off the supply of liquefied gas to the chamber to stop production of solid and gas therein, after a desired mass of the solid has accumulated in the chamber;

(g) Mechanically applying pressure to the mass of solidified gas while the chamber is closed, to press the mass into a dense block of solidified gas; and,

(h) Finally, opening the chamber to atmosphere and removing the completed block therefrom.

It may be observed in passing that plaintiffs had admitted that not all gases that can be liquefied can be solidified. Claim 38 (and others) therefore includes inoperative gases, incapable of being used in producing a solid block.

Admittedly the claim was drawn to cover a snow-ice operation. Counsel for plaintiffs insist that this and the following claim 39 do not merely describe the function of the apparatus. He says they are "manipulative" claims. Well, conceding that for the purpose of argument only, the court cannot find invention in the claim 38. I think that all these steps were old in the art and that they were in general use certainly more than two years therefore. Nor am I able to find that in using the triple point method the [65] steps are equivalents.

Claim 39 provides for "maintaining a definite pressure in the closed chamber during formation and collection of the solid carbon dioxide therein" etc. This claim refers to definite pressure in the closed chamber. Again plaintiffs are in a quandary; if they refer to the de-

vices 81 and 84 then certainly there is no infringement by defendants. If we interpret that claim narrowly, there is no infringement. If we give it the broad interpretation, which plaintiffs would have us apply generally to the claims of the patent, there is no invention over the prior art. The method claims, belatedly presented, seem to the court to be merely an attempt to enlarge the scope of the application to embrace operations quite well known in the industry and in public use more than two years before solicitation.

The court feels also, after careful analysis of plaintiffs' and defendants' briefs and arguments, the points therein made, and the cases cited, that plaintiffs cannot avoid invalidity on the ground of mere aggregation. The statement in the fine old case of *Hailes v. Van Wormer*, 20 Wall. 353, at page 368, is classic:

"It must be conceded that a new combination, if it [66] produces new and useful results, is patentable, though all the constituents of the combination were well known and in common use before the combination was made. But the results must be a product of the combination, and not a mere aggregate of several results, each the complete product of one of the combined elements. * * * Merely bringing old devices into juxtaposition, and there allowing each to work out its own effect, without the production of something novel, is not invention."

" 'The combination, to be patentable,' said Mr. Justice Hunt, in *Reckendorfer v. Faber* (92 U. S. 347, 357), 'must produce a different force or effect, or result, in the combined forces or processes, from that given by their separate parts. There must be a new result produced by their union; if not so, it is only an aggregation of sepa-

1656 *International Carbonic Engineering Co. vs.*

rate elements.' ” Pickering v. McCullough, 1040 U. S. 310, at 318.

Aggregation is, of course, not invention either in processes, machines or manufactures. Grinnell Washing Machine Co. v. E. E. Johnson Co., 247 U. S. 426.

The combination of old elements which perform no new function and accomplish no new results does not involve patentable novelty.

Lincoln Engineering Co. v. Stewart-Warner Corp., 305 U. S. 545, at 549-550.

Mantle Lamp Co. v. Aluminum Products Co., 301 U. S. 544, 546.

Toledo Pressed Steel Co. v. Standard Parts, Inc., 307 U. S. 350, at 355-356.

Mosler Safe and Lock Co. v. Mosler, 127 U. S. 354, 361.

It seems to the court that if the patent in suit be given the most favorable construction contended for by plaintiffs, it can be said to represent no more than an apparatus in which the old elements of a snow chamber are placed in proximity to the old elements of a snow press and a method in which the old step of compressing carbon dioxide snow is performed more immediately after the old step of making carbon dioxide snow. That this is the fact is frankly admitted by plaintiffs' witnesses Jones and Cole.

Plaintiffs' witnesses likewise frankly admit what seems apparent on the face of the patent that the elements of the apparatus as described for the solidification of carbon dioxide are entirely independent of and operate independently of the elements of the apparatus for compressing the material, and vice versa.

It is, of course, true that "to make a valid claim for a combination, it is not necessary that the several elementary parts of the combination should act simultaneously. If those elementary parts are so arranged that the successive action of each contributes to produce some one practical result, which result, when attained, is the product of the simultaneous or successive action of all the elementary parts, viewed as one entire whole, a valid claim for thus combining those elementary parts may be made." 1 Walke on Patents, page 217, and cases there cited. [68]

But the new combination, it should be noted, must produce a result which is the production of the combination and not a mere aggregation of several results, each the complete product of one of the combined elements. We are unable to follow the careful arguments of plaintiffs' counsel. It seems to the court that the situation in the case at bar is not too different from the situation indicated in the Reckendorfer case, (*Reckendorfer v. Faber*, 92 U. S. 347) or the case of *Grinnell Washing Machine Co. v. Johnson Co.*, 247 U. S. 426. See also *Standard Oil Co. v. Southern Pacific Co.*, 54 F. 520; and the following:

Rodiger v. Thaddeus Davids Mfg. Co., 126 F. 960, affirmed 133 F. 1021;

Gas Machinery Co. v. United Gas Improvement Co., 228 F. 684;

Standard Oil Co. v. Globe Oil & Refining Co., 9 F. Supp. 89, affirmed 82 Fed. (2d) 488;

In Re Armbruster, 47 F. (2d) 815;

Jones McLaughlin Inc. v. Amerada Petroleum Corp., 47 F. (2d) 828.

Plaintiffs lay great stress upon the marked commercial success of their apparatus. [69]

We must not lose sight of fundamental principles. The old case of *Atlantic Works v. Brady*, 107 U. S. 192, is just as good law today as it was when it was written in 1882. In that case Mr. Justice Bradley said:

“The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures. Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities to lawsuits and vexatious accountings or profits made in good faith.”

Want of invention can nearly always be determined by the application of one or more of the well recognized rules of patent interpretation. When a case arises to which none of these rules applies, and uncertainty exists, that uncertainty [70] may be removed by means of the rule of *Smith v. Goodyear Dental Vulcanite Co.*, 93 U. S.

486, 495, that where the other facts of the case leave the question of invention in doubt, the fact that the subject of the patent has gone into general use and has displaced something else which had previously been employed for analogous uses, is sufficient to turn the scale in favor of the existence of invention. Walker on Patents, Deller's Edition, Vol. 1, Sec. 44, page 234, and the many cases there cited. See also *Textile Machine Works v. Hirsch Co.*, 302 U. S. 490, and Judge Wilbur's opinion in *Bailey v. Sears-Roebuck & Co.*, C. C. A. 9, 115 Fed. (2d) 904, certiorari denied 314 U. S. 616.

In a more recent case before our Ninth Circuit Court of Appeals, *Grayson Heat Control, Ltd. v. L. A. Gas Appliance Co., Inc.*, 134 Fed. (2d) 478, the court, speaking through Judge Mathews, said:

"Lack of novelty and lack of invention being clearly shown, no significance attaches to the fact, if it be a fact, that utility and commercial success followed. * * *"
(Citing cases.)

If my conclusion that each and all of the claims in suit are invalid is correct, then a finding of infringement would be superfluous. One cannot violate a right that does not exist. How may this court with propriety say, "If the [71] plaintiffs have something—which they do not have—then the defendants have appropriated it to plaintiff's injury?" However, in order to have the matter squarely before the appellate court, and thus possibly save the litigants much expense, in the event the appellate court disagrees with me as to the validity of any claim, I specifically find non-infringement thereof. If the appellate court desires to so limit any claim as to avoid invalidity upon the grounds which I have pre-

viously set forth, then I specifically find non-infringement as to any such claim or claims.

Judgment will be for the defendants with costs. Counsel for the defendants will prepare and serve findings of fact, conclusions of law, and a form of decree on the amended complaint and the answers. Counsel for plaintiffs will do likewise on the counterclaim, and submit the same to counsel for defendants in order that they may be incorporated within the findings and conclusions; all of this to be done in accordance with the rules.

[Endorsed]: Filed May 2, 1945.